

memorandum

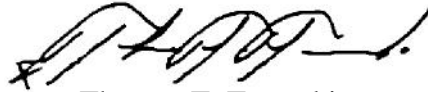
DATE: July 17, 1996

REPLY TO
ATTN OF: Office of Environmental Policy and Assistance: Nakata: 6-0801

SUBJECT: Computer Automated Underground Storage Tanks Guidance --MacIntosh Version

TO: Distribution

Attached for your organization's training library is a copy of a document entitled "*Regulated Underground Storage Tank: User's Manual*". This document and accompanying diskette provide a computer automated version of the "Regulated Underground Storage Tanks" guidance (publication DOE/EH-231/004/0191) previously distributed to all Program Offices and Field Organizations.¹ The Office of Environmental Policy and Assistance, RCRA/CERCLA Division (EH-413) developed the attached computer automated guidance for MacIntosh computers as a means of enhancing the user's access to the expansive amount of information addressing this topic. The User's Manual provides instructions on system requirements, and program installation and use. Your assistance is requested in announcing the availability of this training material to the appropriate personnel at your locale.



Thomas T. Traceski
Director, RCRA/CERCLA Division
Office of Environmental Policy
and Assistance

Attachment

¹EH-413 (formerly EH-231) Memorandum dated June 19, 1992, subject: *Environmental Guidance on Regulated Underground Storage Tanks*.

**Regulated
Underground Storage Tank
Guidance**

User's Manual

Regulated Underground Storage Tank Guidance

User's Manual

Prepared by:
U.S. Department of Energy
Office of Environmental Policy and Assistance
RCRA/CERCLA Division
(EH-413)
Washington, D.C.

Technical Support by:
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Columbia, MD

Comment/Suggestions?

EH-413 welcomes any comments on the utility of this computerized guidance, as well as suggestions for its enhancement. Please forward such correspondence to:

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1. Introduction

The U.S. Department of Energy's Office of Environmental Policy and Assistance (formerly the Office of Environmental Guidance) RCRA/CERCLA Division (EH-413) is pleased to present the computerized version of the graphical guidance, "Regulated Underground Storage Tank Guidance."

Several million underground storage tank (UST) systems in the United States contain petroleum or hazardous substances. Tens of thousands of these USTs, including their piping, are currently leaking. Many more are expected to leak in the future. Leaking USTs can cause fires or explosions and can contaminate drinking water and groundwater.

Congress responded to this problem in 1984 by adding Subtitle I, *Regulation of Underground Storage Tanks*, to the Resource Conservation and Recovery Act (RCRA). Subtitle I requires the Environmental Protection Agency (EPA) to develop regulations to protect human health and the environment from leaking USTs. On September 23, 1988, [53 FR 37082], EPA published regulations in the Code of Federal Regulations, Title 40, Part 280 [40 CFR 280] for many of the nation's UST systems.

All Federal Agencies, including the Department of Energy (DOE), must comply with these regulations. As stated in RCRA Section 9007 (a): "Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government having jurisdiction over any underground storage tank shall be subject to and comply with all Federal, State, interstate, and local requirements, applicable to such tank, both substantive and procedural, in the same manner, and to the same extent, as any other person subject to such requirements..."

To assist the field in complying with Subtitle I and 40 CFR 280, the Office of Environmental Guidance, DOE, prepared and distributed the Regulated Underground Storage Tank Guidance document in June, 1992. It describes the UST procedural requirements that include tanks and piping for both petroleum and hazardous substance USTs. Chapter 5 of the guidance, "Installing a Deferred UST," discusses USTs that contain radioactive materials that are regulated under the Atomic Energy Act of 1954 [42 U.S.C. 2001].

The guidance document is designed to assist DOE Field Operations by providing a thorough explanation of UST regulations. It uses tables, flowcharts, and checklists to provide a "roadmap" for DOE staff who are responsible for supervising UST operations, and is tailored to address the issues facing DOE facilities.

DOE staff should use the UST guidance as:

- (1) An overview of the regulations for UST installation and operation;
- (2) A comprehensive step-by-step guidance for the process of owning and operating an UST, from installation to closure; and
- (3) A quick, ready-reference guide for any specific topic concerning UST ownership or operation.

To further facilitate the field community's compliance with UST regulations, EH-413 has developed this computerized version of the UST guidance document issued in 1992. By computerizing the hard copy guidance document and making the electronic software available on their Internet homepage (<http://www.eh.doe.gov/oepa>), OEPA is attempting to distribute the software to the user community as widely and as cost-effectively as possible. Hard copies of the guidance package may be obtained by contacting the Office of Scientific and Technical Information (OSTI), P.O. Box 62, Oak Ridge, TN 37831, (615) 576-8401.

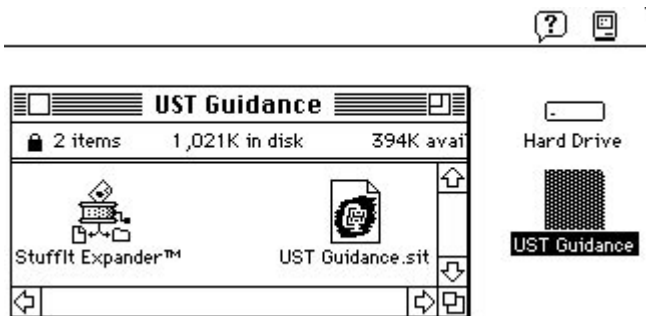
This user's guide identifies the minimum hardware requirements needed to run the software, and provides installation instructions, glossaries to both this user's guide and the UST Guidance, and instructions on how to use the software. On-line help is also provided within the software package. It is strongly recommended that first-time users thoroughly review the introduction chapter, Chapter 1, and Chapter 2, which helps to identify the type(s) of USTs that are present at a given facility. The remainder of the UST guide walks users through the specific UST regulations that pertain to their particular underground storage tank(s).

2. Installation

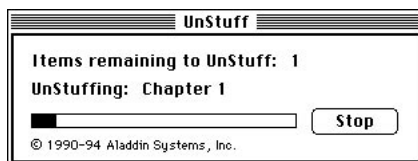
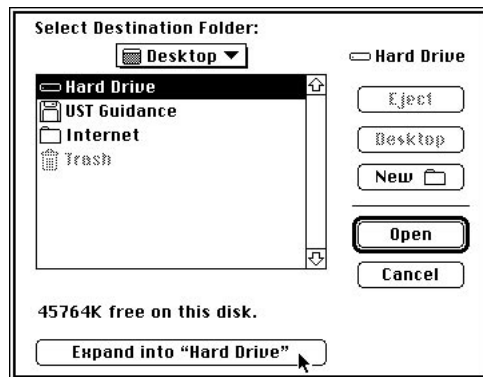
The *UST Guidance* program has been distributed with a simple installation process.

Step 1: Insert the *UST Guidance* Disk into your computer.

Step 2: Double-Click on the *UST Guidance.sit* Icon.

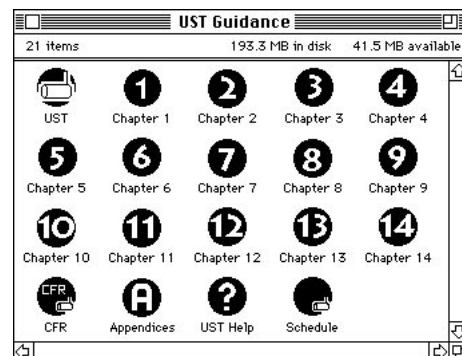


Step 3: The program will ask you where you would like to install the *UST Guidance*. Choose your hard drive, then select the folder in which you would like to install the program. When you have selected, choose the "Expand into..." button.



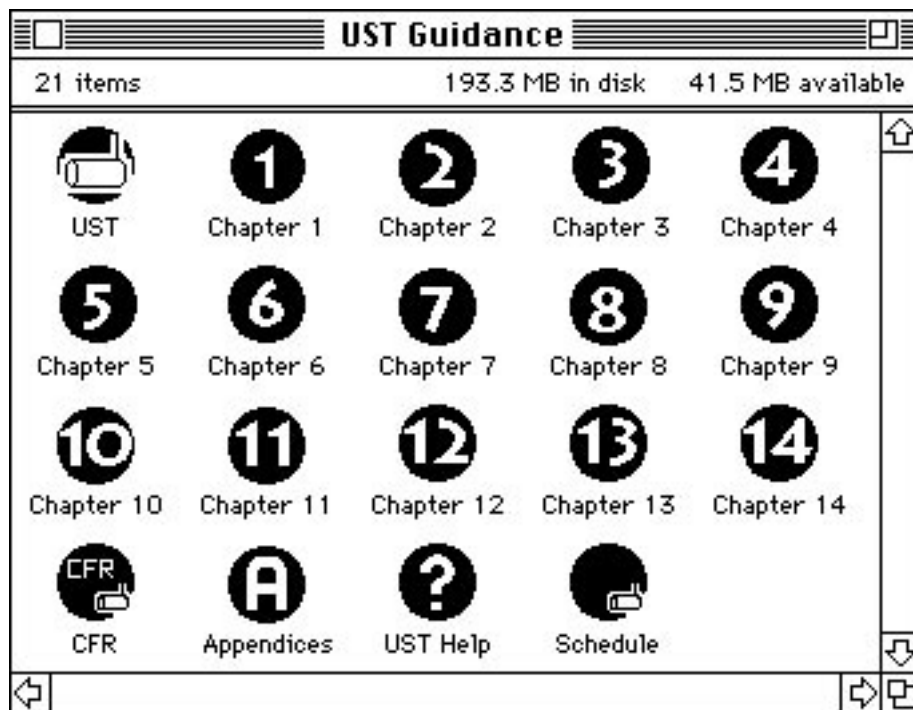
The program will begin to install the various components of the *UST Guidance* to the selected folder.

The *UST Guidance* folder will look similar to the figure at the right. There may be additional files within the folder that allow the program to run on your computer.



3. Starting UST Guidance

The *UST Guidance* Program and supporting files are contained in the *UST Guidance* folder, which will be located in the place that you specified during the installation process.



The *UST Guidance* program may be launched by first double-clicking on the *UST Guidance* folder icon and subsequently double-clicking on the *UST* icon.

Doing this will launch the *UST Guidance* Table of Contents. Any chapter of *UST Guidance* can be viewed by double-clicking on the corresponding icon. It is generally recommended that users access the program through the Table of Contents, since the *Chapter Tracker* feature is automatically engaged (see page 6).

4. Using UST Guidance

4.1 Table of Contents

The user will be presented with the *Table of Contents* Screen.

The Table of Contents screen is actually a series of three screens that show all of the chapters contained in the *UST Guidance*. The user can move through the different screens by using the arrow icons at the bottom of the page.

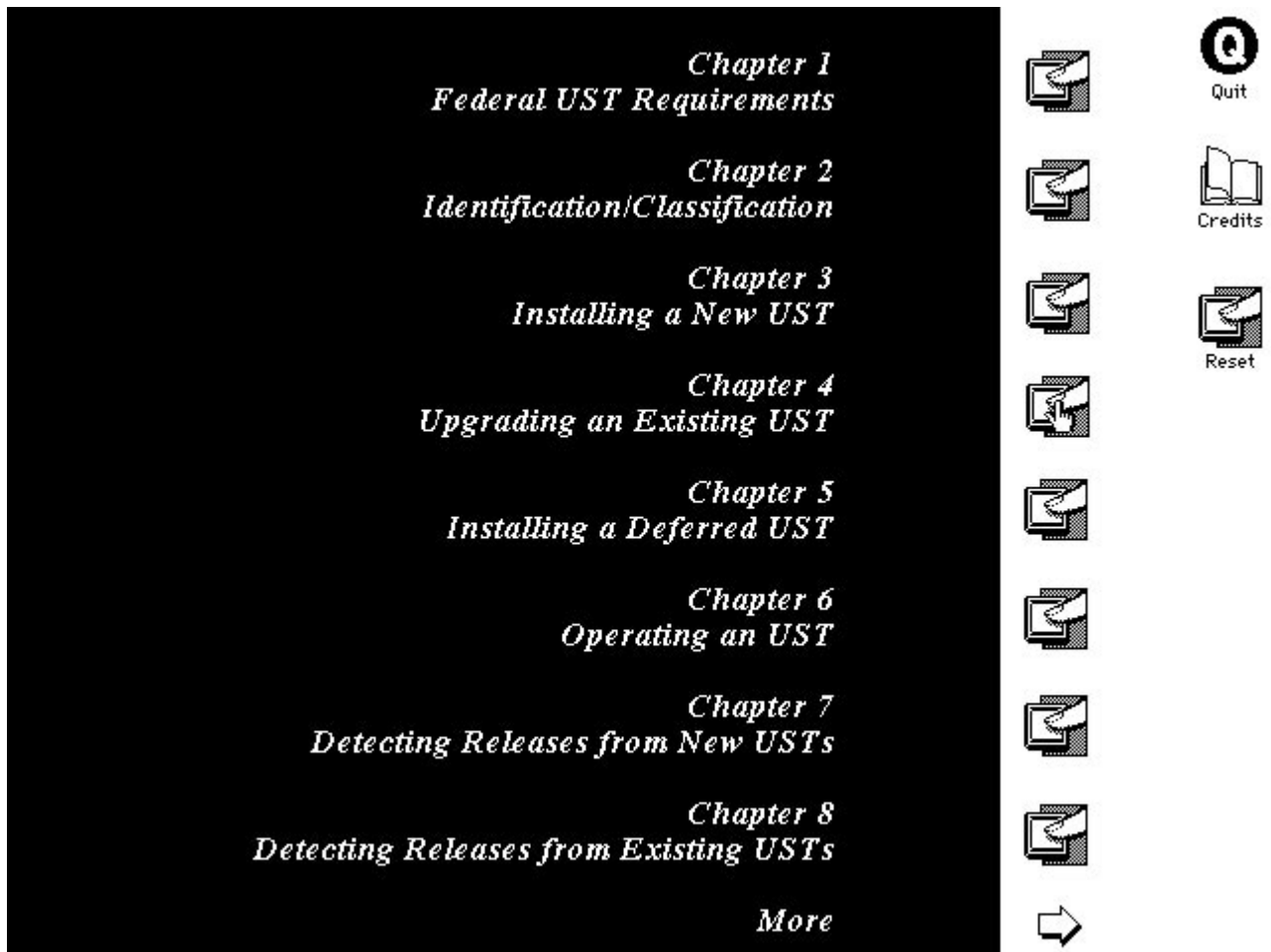


Table of Contents Screen



Quit

The **QUIT** icon allows the user to quit the program.



Credits

The **CREDITS** icon displays information about the program.



Reset

The **RESET** icon resets the *Chapter Tracker* Icons.

Chapter Tracker

Clicking on either of these icons will take the user to the corresponding chapter.



This icon shows that the chapter has not yet been accessed.



This icon shows that the chapter has been accessed.

4.2 Main Menu

The *UST Guidance* is designed to be as simple to use as possible.

The Main Menu screens (as well as the screens of the various sections of the chapters) are essentially identical, with only the graphics and information changing.

Most functions are available through the *Icon Bar* that appears at the top of each screen, and all functions are available with a single mouse-click.



Introduction

Chapter 4

Regulatory Alternatives

Upgrading Tanks

Upgrading Pipes

Installing Spill and Overfill Prevention Equipment

Main Menu Screen

The Main Menu functions as an interactive Table of Contents for each chapter—by clicking on any of the chapter section titles, you can instantly move to that section of the chapter.

4.3 Icon Bar

4.3.1 Main Menu

The Main Menu button will take the user to the next higher section of the hierarchy— From the Main Menu of any chapter (see page 5) clicking on the *Main Menu* icon will return the user to the Table of Contents (see page 4); while clicking on the *Main Menu* icon from any other part of the chapter will take the user to the Main Menu screen for that chapter.



Main Menu

4.3.2 Quit

This icon will quit the program.



Quit








4.3.3 Milestones

The Milestones icon will take the user to the milestones screen that is associated with the currently viewed section of the chapter. The Milestones screen consists of a series of questions that can be answered YES, NO, or NA (Not Applicable).



Milestones

The milestones screen is designed as a check list of key requirements.

						
Main Menu	Quit	Go Back...	NotePad...	BookMark	Previous	Next

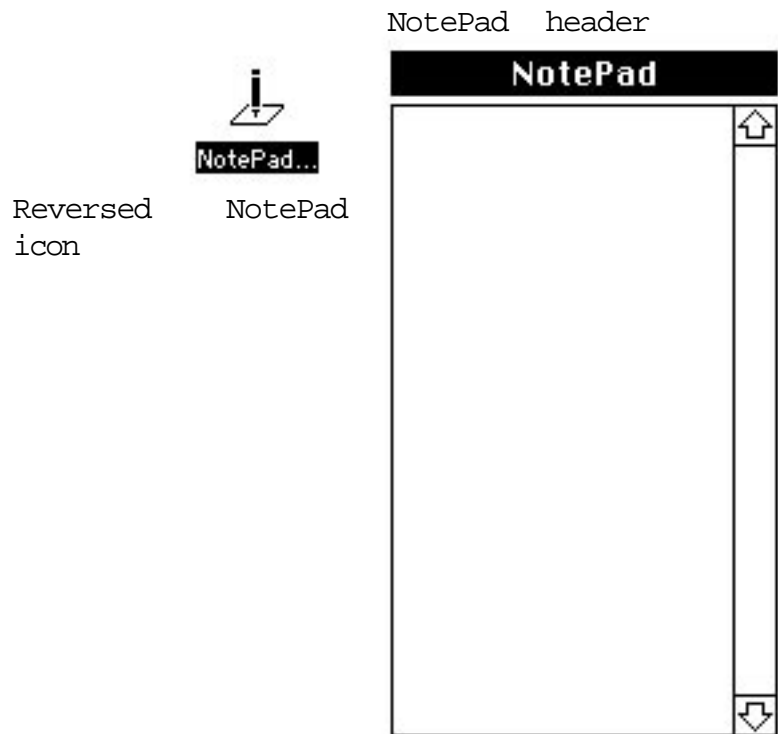
A	B	C	D		Y	N	NA
Does the UST meet EPA's standards for an existing UST?					<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the UST meet EPA's new UST performance standards? [40 CFR 280.21 (a)(1)]					<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the UST meet EPA's existing UST upgrading requirements? [40 CFR 280.21 (a)(2)]					<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will the UST be upgraded or closed by December 22, 1998? [40 CFR 280.21]					<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Milestones Screen



4.3.4 NotePad

Clicking on the NotePad icon will bring up a small text field in the upper right hand portion of the screen. The contents of each notepad are specific to the current screen—that is, each screen has its own individual NotePad. The user can enter up to 32,000 *characters* of text on each screen. When the NotePad is active, the NotePad icon will reverse colors. Clicking on the reversed NotePad icon or the NotePad Header will *hide* the NotePad.



If the NotePad is hidden, and text is contained in the NotePad, a small *Text* icon will appear next to the NotePad icon.

4.3.5 Find



The Find icon allows users to search for a specific string of text. The program will search for the *next* occurrence of the specified string *only* within the *current chapter*. The feature is not case sensitive; upper or lower-case letters may be entered.

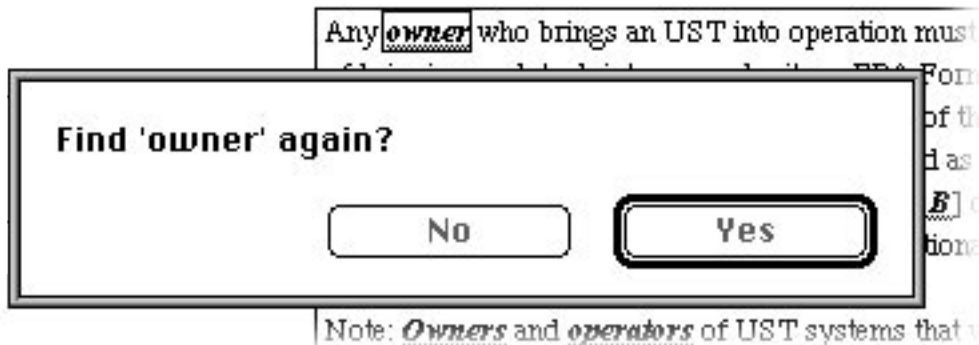
Please enter a search term...

owner

OK

Cancel

The user will then be asked if he or she would like to continue the search.



4.3.6 BookMark

The icon serves dual functions: It allows the user to electronically "Dog-ear" or mark a screen for future review; and it allows the user to see a list of any previously marked screens.



BookMark



Clicking on "MARK" will place a "Marked" icon in the upper right-hand corner of the screen. This icon indicates that the screen has electronically been added to the list of marked screens. The user can have an unlimited number of marked screens.



Marked

To "Unmark" a screen, the user only has to click on the Marked icon. The user will be asked to verify the procedure.

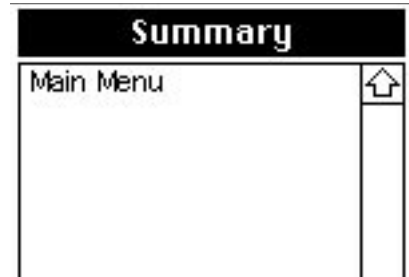


The Summary function of the bookmark icon allows the user to see a list of all previously marked screens *only* in the current chapter.

The user may then click on the title of the marked screen (in this case "Main Menu") and the program will take the user to that screen.

The Summary Field may be removed from the screen by clicking on the "Summary" header.

Summary header



Quick Help

4.3.7 QuickHelp

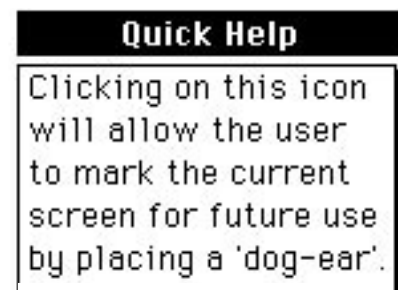
QuickHelp gives the user on-line context-sensitive help, while allowing the program to continue normal functions.

Clicking on the icon will reveal a QuickHelp Field. Any feature of the program that responds to QuickHelp will produce a short description of the icon's function by simply moving the mouse over the object. There is no need to click the mouse. Clicking the mouse will produce the normal effect that occurs when QuickHelp is not on.



When QuickHelp is active, the QuickHelp field will appear, the QuickHelp icon will invert, and the word "ON" will appear beneath the QuickHelp icon.

QuickHelp header



Clicking on the inverted QuickHelp icon or the QuickHelp Header will disable QuickHelp.



Help!

4.3.8 Help

The Help icon will allow a user to call up an abbreviated On-Line version of this user's guide. The On-Line help briefly covers the functions of the icons in the Icon Bar.

4.3.9 Navigation

The two Navigation icons allow the user to move forward and backward through the screens where applicable. A bell will indicate that the user has moved as far forward or backward in viewable screens as possible.

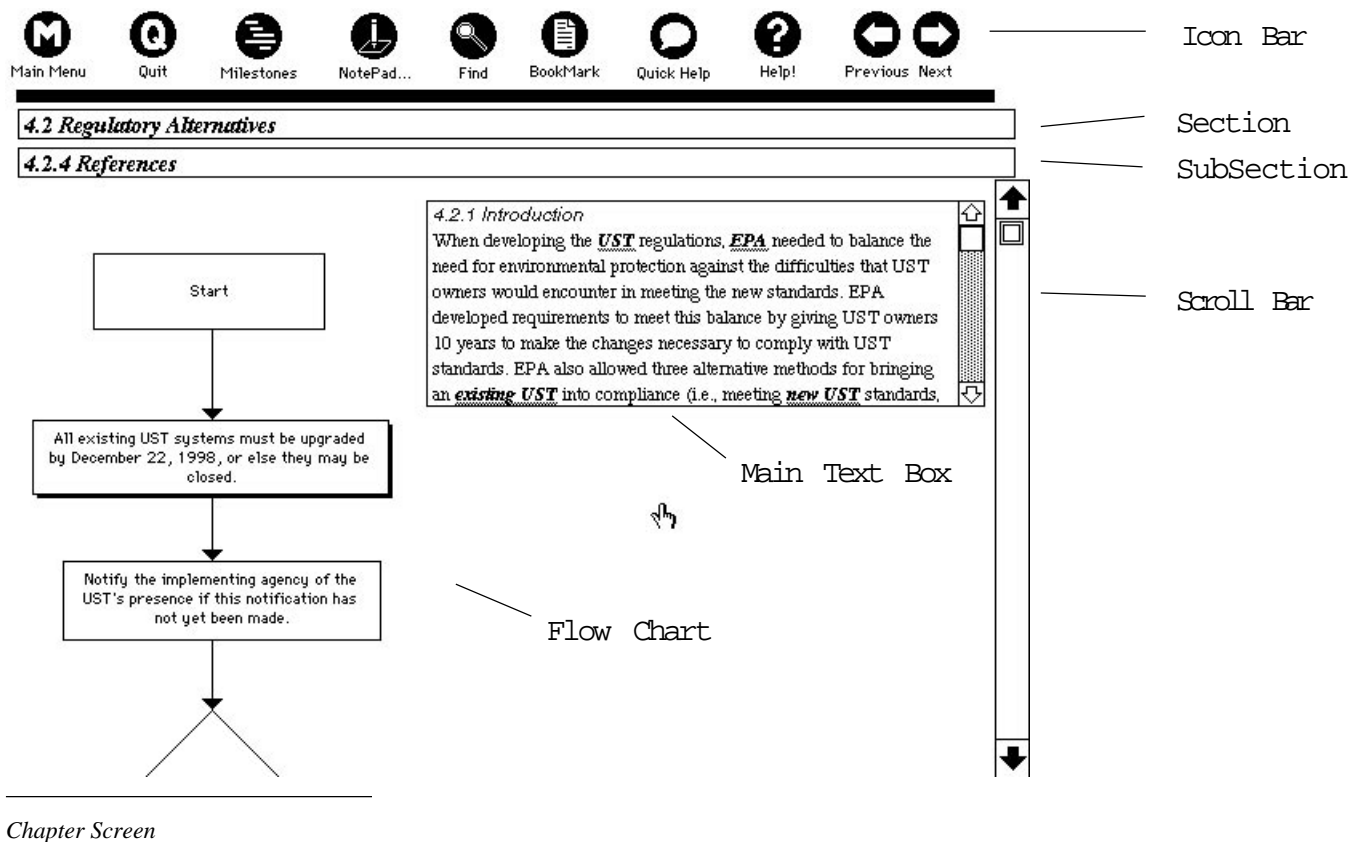


4.4 Chapter Screens

Chapter Screens are those screens that contain the bulk of the information of the program.

All Chapter Screens are laid out in a similar fashion, the following sections will cover each element of the Chapter Screen.

The Icon Bar was covered in the previous section.



4.4.1 Section

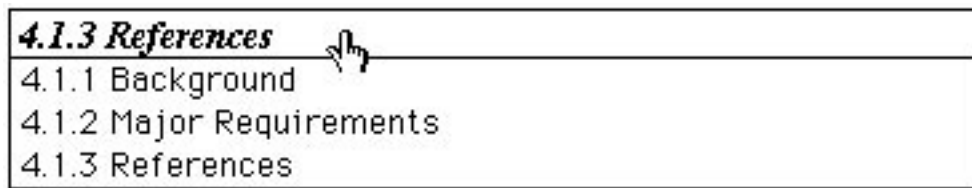
Clicking on the Section area will pop up a list of all other sections in the current Chapter. The user may then move directly to that part of the chapter by clicking on the title of any chapter section.



4.4.2 Subsection

Clicking on the SubSection area will pop up a list of all other subsections in the current Section. The user may then navigate through the section by clicking on the title of any subsection.

Clicking on "References" will bring up a text box, directly below the Main Text Box, containing the references for the current section of the UST Regulations.



4.4.3 Scroll Bar

Many screens contain more information than can be viewed at one time. In order to compensate for this, each screen has a scroll bar on the right-hand of the screen.

The Upper arrow moves the screen up incrementally, while the lower arrow moves the screen down incrementally.

The Square directly beneath the Upper Arrow returns the screen to the default position (i.e., the top of the page).

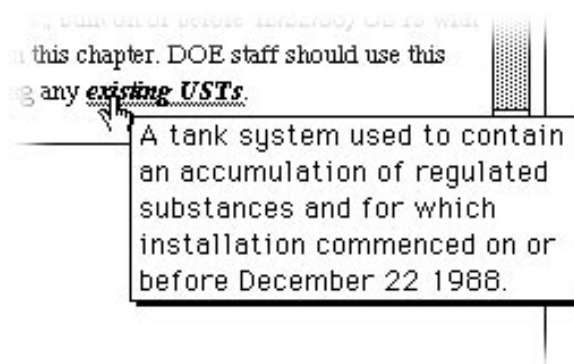
When the screen is not in the default position, the Icon Bar is not visible and cannot be used.



4.4.4 Main Text Box

The Main Text Box is the portion of the screen that contains most of the textual content of the *UST Guidance*. The Main Text Box also contains a small scroll bar that allows the user to move through the text accompanying the current Section.

Some terms and phrases may be highlighted with an underline and a **bold** typeface (e.g., **DOE**). This indicates that more information is available on the word(s). The result of clicking on the highlighted text will depend on the type of text. That is, clicking on an acronym will identify the full term represented by the acronym, clicking on a reference will cite the corresponding reference, clicking on a CFR citation will present the user with the full text of the CFR citation, and clicking on any other term will yield a definition of the term.

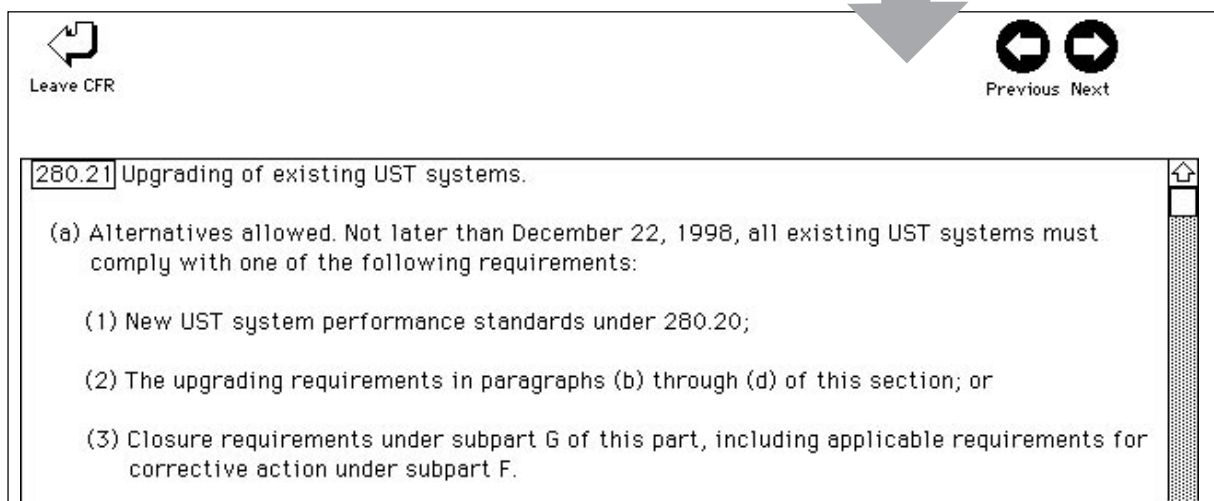
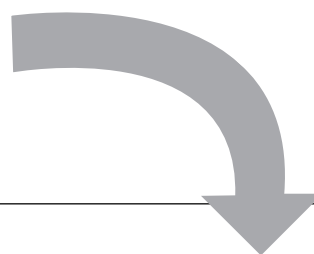


NOTE: If the Main Text Box is covering any underlying text or graphics, it may be moved by simultaneously holding down the MOUSE button and the SHIFT key on the keyboard while dragging the mouse.

4.4.5 CFR

The CFR citations will bring the user to a different section of the program. The user can browse through the entire portion of the CFR that is concerned with UST regulations.

•Module B: Upgrading Tanks. This module contains materials and methods for upgrading an existing UST system.
[40 CFR 280.21 (b)]
 •Module C: Upgrading Pipes. This module contains materials and methods for upgrading an existing UST system.



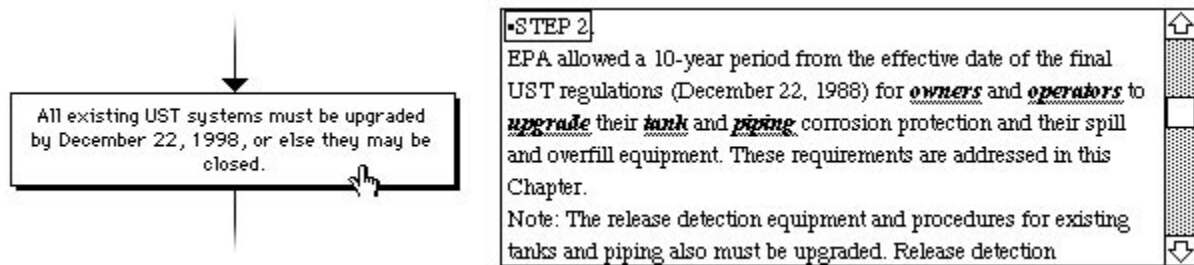
4.4.6 Flow Chart

The Flow Chart graphically represents the steps required for each specific action associated with Underground Storage Tanks.

Each Polygon contains a brief explanation of the step involved. Clicking on the Polygon will cause the Main Text Box to show a more in-depth explanation of the step.

The polygon will be highlighted by a "drop-shadow," while the corresponding text will be outlined by a box.

In some cases, clicking on a polygon will take the user to another part of the current chapter, or to a completely different chapter. The user will always be asked before this happens.



4.4.7 Milestone Screen

The Milestone Screen (shown previously) allows the user to record compliance with regulations by clicking on the button corresponding to the question. Some, but not all, of the Icon Bar functions are available from this screen.

The "GO BACK..." icon will return the user to the corresponding section.

The screenshot shows the Milestone Screen interface. At the top is an icon bar with the following icons and labels: Main Menu (M), Quit (Q), Go Back... (left arrow), NotePad... (notepad icon), BookMark (book icon), and Previous Next (double arrows). Below the icon bar is a header row with buttons labeled A, B, C, D, Y, N, and NA. The main area contains four questions, each with a corresponding column of radio buttons under the Y, N, and NA headers. A mouse cursor is pointing at the radio button for the first question under the Y column.

Question	Y	N	NA
Does the UST meet EPA's standards for an existing UST?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the UST meet EPA's new UST performance standards? [40 CFR 280.21 (a)(1)]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the UST meet EPA's existing UST upgrading requirements? [40 CFR 280.21 (a)(2)]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will the UST be upgraded or closed by December 22, 1998? [40 CFR 280.21]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Glossary of UST Terms*

Aboveground release	Any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the aboveground portion of an UST system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from an UST system.
Ancillary equipment	Any devices including, but not limited to, piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from an UST.
Belowground release	Any release to the subsurface of the land and to groundwater. This includes, but is not limited to, releases from the belowground portions of an underground storage tank system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank.
Beneath the surface of the ground	Beneath the ground surface or otherwise covered with earthen materials.
Cathodic protection	A technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. For example, a tank system can be cathodically protected through the application of either galvanic anodes or impressed current.
Cathodic protection tester	A person who can demonstrate an understanding of the principals and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, such persons must have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems.

* Source: 40 CFR 280.12 [53 FR 37195]

- CERCLA** The Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.
- Change in Service** A method of tank closure that allows the tank to be used to store non-regulated substances.
- Compatibility** The ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST.
- Connected piping** All underground piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which regulated substances flow. For the purpose of determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them.
- Consumptive use** With respect to heating oil, a term that means consumed on the premises.
- Corrosion expert** A person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired through a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be accredited or certified as being qualified by the National Association of Corrosion Engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.
- Deferred USTs** A regulatorily defined list of USTs [40 CFR 280.10 (c) and (d)] that are not currently covered by the comprehensive Federal UST regulations. Until EPA determines how to fully regulate these USTs under Subtitle I, deferred USTs are only subject to installation and release response requirements.
- Dielectric material** A material that does not conduct direct electrical current. Dielectric coatings are used to electrically isolate UST systems from the surrounding soils. Dielectric bushings are used to electrically isolate portions of the UST system (e.g., tank from piping).

- Electrical equipment** Underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable.
- Excavation zone** The volume containing the tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation.
- Existing tank system** A tank system used to contain an accumulation of regulated substances and for which installation commenced on or before December 22, 1988. Installation is considered to have commenced if:
- (1) The owner or operator has obtained all Federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system; and
 - (2)(a) A continuous on-site physical construction or installation program has begun; *or*
 - (2)(b) The owner or operator has entered into contractual obligations that cannot be canceled or modified without substantial loss, for physical construction at the site or installation of the tank system to be completed within a reasonable time.
- Excluded USTs** USTs that are not covered by the Federal UST regulations [40 CFR 280 and 281] either because Congress excluded them from the statutory definition of an “UST” or because EPA excluded them from the applicability section of the regulations.
- Farm tank** A tank located on a tract of land devoted to the production of crops or the raising of animals, including fish, and associated residences and improvements. A farm tank must be located on the farm property. “Farm” includes fish hatcheries, rangeland, and nurseries with growing operations. Farm tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes are excluded from the definition of “UST.”
- Flow-through process tank** A tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process.

Free product	A regulated substance that is present as a non-aqueous phase liquid (e.g., liquid not dissolved in water).
Gathering line	Any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations.
Hazardous substance UST system	An underground storage tank system that contains a hazardous substance defined in Section 101(14) of CERCLA (but not including any substance regulated as a hazardous waste under Subtitle C of RCRA) or any mixture of such substances and petroleum and is not a petroleum UST system.
Heating oil	Petroleum that is a No. 1, No. 2, No. 4-light, No. 4-heavy, No. 5-light, No. 5-heavy, or No. 6 technical grade of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces.
Hydraulic lift tank	A tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.
Implementing agency	EPA or, in the case of a State with a program approved under RCRA Section 9004 (or pursuant to a memorandum of agreement with EPA), the designated State or local agency responsible for carrying out an approved UST program.
Liquid trap	A sump, well cellar, or other trap used in association with oil and gas production, gathering, and extraction operations (including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.
Maintenance	The normal operational upkeep to prevent an underground storage tank system from releasing product.
Motor fuel	Petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol and is typically used in the operation of a motor engine.

New tank system	A tank system that will be used to contain an accumulation of regulated substances and for which installation commenced after December 22, 1988. (See also “Existing Tank System”).
Noncommercial purposes	With respect to motor fuel, a term that means not for resale.
On the premises where stored	With respect to heating oil, a term that means UST systems located on the same property where the stored heating oil is used.
Operational life	The period beginning when installation of the tank system commences and ending when the tank system is properly closed under Subpart G of Subtitle I of RCRA (See Chapter 14, “Removing or Closing an UST”).
Operator	Any person in control of, or having responsibility for, the daily operation of the UST system.
Out-of-Service	While an UST is out-of-service, liquids are neither transferred into nor transferred out of the UST. An out-of-service UST must be either permanently closed, temporarily closed, or must be converted into a tank that holds only non-regulated substances.
Overfill release	A release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment.
Owner	<p>(1) In the case of any UST system in use before November 8, 1984, or brought into use after that date, any person who owns an UST system used for storage, use, or dispensing of regulated substances; and</p> <p>(2) In the case of any UST system in use before November 8, 1984, but no longer in use on that date, any person who owned such an UST immediately before the discontinuation of its use.</p>
Person	An individual, trust, firm, joint stock company, Federal agency, corporation, State, municipality, commission, political subdivision of a State, or any inter-state body. “Person” also includes a consortium, a joint venture, a commercial entity, and the United States Government.
Petroleum UST system	An underground storage tank system that contains petroleum or a mixture of petroleum with <i>de minimis</i> quantities of other regulated substances. Such systems include those containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, or used oils.

Pipe or piping	A hollow cylinder or tubular conduit that is constructed of non-earthen materials.
Pipeline facilities (including gathering lines)	New and existing pipe rights-of-way and any associated equipment, facilities, or buildings.
RCRA	The Resource Conservation and Recovery Act of 1976. Actually an amendment to the Solid Waste Disposal Act of 1965, RCRA focused on the nation's solid waste management system and expanded provisions regarding hazardous waste management. The Hazardous and Solid Waste Amendments (HSWA) of 1984 significantly expanded the scope and requirements of RCRA. Subtitle I under RCRA, the underground storage tank provisions, is one of four regulatory programs established by RCRA.
Regulated substance	<p>(1) Any substance defined in Section 101(14) of CERCLA (but not including any substance regulated as a hazardous waste under Subtitle C of RCRA), and</p> <p>(2) Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).</p> <p>The term "regulated substance" includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading, and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuel, lubricants, petroleum solvents, or used oils.</p>
Release	Any spill, leak, emission, discharge, escape, leach or disposal from an UST into ground water, surface water, or subsurface soils.
Release detection	Determination of whether a release of a regulated substance has occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary containment.
Repair	Restoration of a tank or UST system component that has caused a release of product from the UST system.

Residential tank	A tank located on property used primarily for dwelling purposes.
SARA	The Superfund Amendments and Reauthorization Act of 1986.
Septic tank	A watertight covered receptacle designed to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer. The effluent from such receptacle is distributed for disposal through the soil, and settled solids and scum from the tank are pumped out periodically and hauled to a treatment facility.
Storm-water or wastewater collection system	Piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water runoff resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does not include treatment except where incidental to conveyance.
Surface impoundment	A natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials) that is not an injection well.
Tank	A stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials (e.g., concrete, steel, plastic) that provide structural support.
Underground area	An underground room, such as a basement, cellar, shaft, or vault providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor.
Underground release	Any belowground release.
Underground storage tank or UST	Any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include any:

- (1) Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
- (2) Tank used for storing heating oil for consumptive use on the premises where stored;
- (3) Septic tank;
- (4) Pipeline facility (including gathering lines) regulated under:
 - (a) The Natural Gas Pipeline Safety Act of 1968 [40 U.S.C. App. 1671, et seq.],
 - (b) The Hazardous Liquid Pipeline Safety Act of 1979 [49 U.S.C. App. 2001, et seq.], or
 - (c) State laws comparable to the laws referred to above if the pipeline is an intrastate facility;
- (5) Surface impoundment, pit, pond, or lagoon;
- (6) Storm-water or wastewater collection system;
- (7) Flow-through process tank;
- (8) Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or
- (9) Storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated above the surface of the floor.

The term “underground storage tank” or “UST” does not include any pipes connected to any tank that is described in paragraphs (1) through (9) of this definition.

Upgrade The addition or retrofit of some systems such as cathodic protection, lining, or spill and overfill controls to improve the ability of an underground storage tank system to prevent the release of product.

UST system or tank system An underground storage tank, connected underground piping, underground ancillary equipment, and containment systems, if any.

Wastewater treatment tank A tank that is designed to receive and treat influent wastewater through physical, chemical, or biological methods.

Glossary of Computer Terms

Clicking	The act of placing the cursor over an object and pressing once on the mouse button.
Cursor	An on-screen representation of the location of a mouse or other pointing device.
Double-Clicking	The act of placing the cursor over an object and pressing two times on the mouse button in quick succession.
Hard Drive	A device connected to a computer that allows convenient storage of large amounts of data.
Free Hard Disk Space	The total amount of unoccupied storage available on a hard drive.
Icon	A small graphic used to represent an action or file on a computer system.
Installer	A program that automates the placement and set-up of software on a computer system.
Minimum Free Memory	The total amount of RAM not allocated for use and available on a computer.
Minimum Processor	The Apple Macintosh family of computers uses the Motorola 680x0 family of processor chips. You should be aware of the type of chip used by your Macintosh. The lowest chip that can successfully operate this program is the 68020 .

Minimum System*

The Apple Macintosh family of computers uses an operating system known as MAC OS. The current operating system in use is referred to as *System 7.5*. You should be aware of the System version used by your Macintosh. It is not recommended that you use any OS prior to System 6.07.

RAM*

Random Access Memory. The term RAM refers to the amount of memory currently installed in your computer. 1024k is equal to 1 megabyte of memory. UST Guidance requires 2048k (2 megabytes) of memory on a Macintosh.

*Note: Resources permitting, and based on the expressed interest of UST guidance users/training coordinators, EH-413 may produce and distribute an automated version of the "Regulated Underground Storage Tank Guidance" for the Windows™ computer platform in the future.